

## REMARKS

This communication is in response to the Official Action mailed April 23, 2002. Applicant has amended claim 2. Applicant has added new claims 4-11 to clarify the scope of the invention. Claims 1-3 are now pending in the application.

### A. Claim Rejections Under 35 U.S.C. § 112, ¶ 2

In the Office Action mailed April 23, 2002, the Examiner rejected claim 2 under 35 U.S.C. § 112, ¶ 2 for multiple use of “and/or”. Applicants have amended claim 2 in accordance with the Examiner’s comments.

### B. Claim Rejections Under 35 U.S.C. § 102(e)

In the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,236,978 to Tuzhilin. Applicants respectfully traverse.

The disclosure of Tuzhilin focuses on the generation of dynamic user profiles and the transformation of such dynamic profiles into aggregate rules, and discloses “Personal Shopping Assistant (PSA)” and “Personal Intelligent Digital Assistant (PIDA)” systems in which such aggregate rules are generated and employed. The described PSA system matches a user’s profile against products and services and related promotions in order to select and send purchasing recommendation messages to the user. Cols. 11:53-12:24. Similarly, the described PIDA system matches a user’s profile against a geographic restaurant database in order to select and send restaurant recommendations to the user’s personal digital assistant (PDA) device. Cols. 13:38-14:14. Tuzhilin briefly mentions a “Web site system” in which “individual profiles for respective users” are used to vary “the dynamic Web content of the Web site presented to the user” in order “to conform to the dynamic profile of the user visiting the Web site.” Col. 14:21-29. Such variation of Web site content, i.e., interpreting rules to select and deliver different HTML web pages to different users, is no different than that disclosed by prior art cited in the present application.

Tuzhilin does not, however, disclose the interpretation and dynamic application of rules to user state conditions in order to adaptively render and compose content pages from dynamic content objects for particular users, as described and claimed in the present application. Unlike Tuzhilin, the invention of the present application does not merely select and deliver messages or

content to users; instead, the invention adaptively renders customized, content-rich pages from a hierarchy of dynamic content objects which include dynamic pages, dynamic stacks within each page, dynamic content elements within each stack, and primitive objects within each content element. The adaptive rendering of content pages and content objects will differ for different users (and for the same user at different state conditions), based on criteria that include, for example, the user's profile, platform, and observed behavior data, as well as aggregate profile, platform, and behavior data, and the user's particular application state conditions.

New claims 4-11 submitted herewith include the novel elements noted above as well as additional elements described in the present application.

In view of the foregoing Remarks, Applicants respectfully submit that the present application is now in condition for allowance and respectfully request such action.

### CONCLUSION

In view of the foregoing, Applicant respectfully requests continued examination of Claims 1-11, and submits that these claims are in condition for allowance.

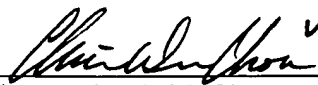
Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

If the Examiner believes that a conference would facilitate prosecution of this application, the Examiner is invited to telephone Applicant's representative, undersigned, at the number set out below.

Respectfully submitted,

Dated: July 23, 2002

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#### CERTIFICATE OF MAILING (37 CFR 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited on July 23, 2002, with the U.S. Postal Service as First class mail in an envelope addressed to: Box No Fee Amendment, Assistant Commissioner for Patents, Washington, D.C., 20231.

Date: July 23, 2002

  
Yvette Yumide-Owen

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

### In the Claims

1 2. (Once Amended) A system for adaptively rendering, to users of a network application, a  
2 plurality of content pages generated from among a plurality of content objects created by an  
3 author of the application, the system comprising:

4 (a) one or more databases for storing information relating to the application and its  
5 users, including:

6 (i) individual [(and/or], cumulative or aggregate[)] user profile, platform  
7 and[/or] behavioral data;

8 (iv) content objects created by the author of the application at a plurality of  
9 levels of abstraction, including a plurality of interconnected pages and a  
10 plurality of intra-page content objects;

11 (v) application state data; and

12 (iv) application rules directing the system to select one or more of the content  
13 objects for delivery to one or more users of the application if one or more  
14 conditions relating to the application state data are satisfied;

15 and

16 (b) a dynamic content composition engine for interpreting the application rules  
17 dynamically and generating and delivering content pages over the network to  
18 users of the application, the engine including:

19 (i) a first manager for interpreting the application rules to select page content  
20 objects to be delivered to users of the application;

21 (ii) a second manager for interpreting the application rules to select intra-page  
22 content objects, wherein the content pages delivered to users are generated  
23 in part by including the selected intra-page content objects within the  
24 selected page content objects.

1 4. (New) The system of claim 2 wherein the first manager for interpreting the application  
2 rules to select page content objects to be delivered to users of the application performs the  
3 following steps in selecting the page content objects to be delivered to a particular user:

4 (a) obtains profile, platform, or behavioral data specific to the user;

- (b) obtains global, aggregate data regarding profiles and behavior of other users;
- (c) determines a potential sequence of interconnected content pages to be delivered to the user;
- (d) calculates variables based upon the data specific to the user in order to determine the next content page or content pages and links to subsequent content pages to be delivered to the user; and
- (e) recalculates the variables in order to determine the next content page or content pages and links to subsequent content pages to be delivered to the user, whenever the user requests another content page.

5. (New) The system of claim 2 wherein the intra-page content objects selected by the second manager for interpreting the application rules comprise objects that may be invoked from server-side or client-side applications and that dynamically render content pages based on profile, platform, behavioral data, or interactive responses of a user.

6. (New) The system of claim 5 wherein the content objects adaptively render HTML within the content pages.

7. (New) The method of claim 3, wherein the next content page to be viewed by a user is pre-fetched and delivered to the user's web browser while the user views the current content page, with such pre-fetching based on the user's profile, platform, or behavioral data.

8. (New) A system for adaptively rendering, to users of a network application, a plurality of content pages generated from among a plurality of content objects, the system comprising:

- (a) a database of information relating to the application and its users, and including the following types of information:
  - (i) user profile data;
  - (ii) user platform data;
  - (iii) observed user behavioral data;
  - (iv) aggregate or cumulative profile, platform, and behavioral data from multiple users; and

- 10 (v) application state data;
- 11 (b) a database of content objects, the content objects comprising:
  - 12 (i) one or more dynamic pages;
  - 13 (ii) one or more dynamic stacks within each page;
  - 14 (iii) one or more dynamic content elements within each stack; and
  - 15 (iv) one or more primitive objects within each content element;
- 16 (c) one or more application rules for directing the system to select dynamically:
  - 17 (i) one or more of the plurality of content objects, referenced implicitly in the
  - 18 rules via an expression that relates to one or more goals of the author;
  - 19 (ii) one or more users of the application that may receive the selected content
  - 20 objects; and
  - 21 (iii) one or more application state conditions under which the selected content
  - 22 will be delivered to the selected users;
- 23 and
- 24 (d) an engine for interpreting the application rules dynamically and generating and
- 25 delivering content pages over the network to users of the application.

- 1 9. (New) A system for adaptively rendering, to users of a network application, a plurality of
- 2 content pages generated dynamically from among a plurality of content objects created by an
- 3 author of the application, the system comprising:
- 4 (a) a database of information relating to the application and its users, and including
  - 5 the following types of information:
    - 6 (i) user profile data;
    - 7 (ii) user platform data;
    - 8 (iii) observed user behavioral data;
    - 9 (iv) aggregate or cumulative profile, platform, and behavioral data from
    - 10 multiple users; and
    - 11 (v) application state data;
  - 12 (b) one or more application rules for directing the system to select dynamically:

- 13 (i) one or more of the plurality of content objects, referenced implicitly in the  
14 rules via an expression that relates to one or more goals of the author, the  
15 plurality of content objects comprising:  
16 (1) one or more dynamic pages;  
17 (2) one or more dynamic stacks within each page;  
18 (3) one or more dynamic content elements within each stack; and  
19 (4) one or more primitive objects within each content element;  
20 (ii) one or more users of the application that may receive the selected content  
21 objects; and  
22 (iii) one or more application state conditions under which the selected content  
23 will be delivered to the selected users;  
24 and  
25 (c) an engine for interpreting the application rules dynamically and generating and  
26 delivering content pages over the network to users of the application.

- 1 10. (New) A system for adaptively rendering, to users of a network application, a plurality of  
2 content pages generated dynamically from among a plurality of content objects created by an  
3 author of the application, the system comprising:  
4 (a) one or more databases for storing information relating to the application and its  
5 users, the information including:  
6 (i) individual user profile data, cumulative or aggregate user profile data, user  
7 platform data, and observed user behavioral data;  
8 (ii) content objects created by the author of the application at a plurality of  
9 levels of abstraction, the plurality of content objects comprising:  
10 (1) one or more dynamic pages;  
11 (2) one or more dynamic stacks within each page;  
12 (3) one or more dynamic content elements within each stack; and  
13 (4) one or more primitive objects within each content element;  
14 (iii) application state data; and

15 (iv) application rules directing the system to select one or more of the intra-  
16 page content objects for delivery to one or more users of the application if  
17 one or more conditions relating to the application state data are satisfied;

18 and

19 (b) a dynamic content composition engine for interpreting the application rules  
20 dynamically and generating and delivering content pages over the network to  
21 users of the application, the engine including:

22 (i) a first manager for interpreting the application rules to select the dynamic  
23 page content objects to be delivered to users of the application; and

24 (ii) a second manager for interpreting the application rules to select intra-page  
25 content objects, wherein the content pages delivered to users are generated  
26 in part by including the selected intra-page content objects within the  
27 selected dynamic page content objects.

1 11. (New) A system for adaptively rendering, to users of a network application, a plurality of  
2 content pages generated dynamically from among a plurality of content objects created by an  
3 author of the application, the system comprising:

4 (a) a database of information relating to the application and its users, and including  
5 the following types of information:

6 (i) user profile data;

7 (ii) user platform data;

8 (iii) observed user behavioral data;

9 (iv) aggregate or cumulative profile, platform, and behavioral data from  
10 multiple users; and

11 (iv) application state data;

12 (b) one or more application rules for directing the system to select dynamically:

13 (i) one or more of the plurality of content objects, referenced implicitly in the  
14 rules via an expression that relates to one or more goals of the author, the  
15 plurality of content objects comprising objects that may be invoked from  
16 server-side or client-side applications and that dynamically render content

17 pages based on profile, platform, and behavioral data, and application state  
18 data of a user;  
19 (ii) one or more users of the application that may receive the selected content  
20 objects; and  
21 (iii) one or more application state conditions under which the selected content  
22 will be delivered to the selected users;  
23 and  
24 (c) an engine for interpreting the application rules dynamically and generating and  
25 delivering content pages over the network to users of the application.